



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,575	01/15/2002	Jorg Langowski	4139-122	2920

23448 7590 03/03/2005

INTELLECTUAL PROPERTY / TECHNOLOGY LAW
PO BOX 14329
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

WALLENHORST, MAUREEN

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,575

Applicant(s)

LANGOWSKI, JORG

Examiner

Maureen M. Wallenhorst

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1743

1. Claims 1-7 and 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 7 of claim 1, the recited transparent medium located in each sample vessel is indefinite since the transparent medium was not positively recited as being located within each sample vessel earlier in the claim. It is suggested to insert the phrase –a transparent medium in each sample vessel—on line 5 of claim 1 before the phrase “and a common cover”. On line 8 of claim 1, the phrase “reflective-coated bottom” should be changed to –reflection-coated bottom—so as to be consistent with the terminology used on line 4 of claim 1.

On line 1 of claim 7, the phrase “the wall of the sample vessel” should be changed to –a wall of each sample vessel—since claim 1 recite two or more sample vessels.

On line 3 of claim 11, the phrase “focal point of the bottom of said sample vessel” does not make proper sense and should be changed to –focal point within said sample vessel--. This same change should also be made on line 3 of claim 13.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 8 is rejected under 35 U.S.C. 102(a) as being anticipated by Tewes et al (WO 99/09393).

Tewes et al teach of a method and device for polychromatic fluorescence spectroscopy. The device 20 consists of a block 21 with a flat surface 22 that incorporates a recess 23 as a

Art Unit: 1743

sample vessel. A transparent medium is located inside of the sample vessel. The sample vessel is shaped like a parabola and has a metal-coated floor area 24 that acts as a parabolic mirror. This mirror is arranged in such a way that the focal point 25 of the parallel incident light beams 27-32 is located inside the recess 23. Placed over the recess 23 on the flat surface 22 of the block 21 is a cover slip 26, which covers the recess 23 filled with the sample in buffer solution. Parallel incident light beams 27-32 perpendicularly pass through the surface of the cover slip, penetrate into the sample arranged in the recess 23, going through the sample and arriving at the floor area 24. After hitting the metal-coated floor area 24 inside the sample liquid, the light beams 27-32 are deflected towards the focal point 25 located within the sample vessel. All the light beams 27-32 converge in focal point 25, even if the light beams exhibit different wavelengths.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1743

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-6 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tewes et al (WO 99/09393) in view of Tolles (US Patent no. 4,432,642). For a teaching of Tewes et al, see previous paragraphs in this Office action. Tewes et al fail to teach of a plurality of sample vessels 23 in the block 21, and fail to teach that the cover 26 has plungers with light windows thereon for individually inserting into the recesses on the block 21.

Tolles teaches of a nephelometer for photometrically measuring light scattered by particles in a liquid sample that comprises a specimen vessel holder 10 and a common, removable cover 11. The specimen holder cover 11 has integrally formed thereon a plurality of identical depending immersion light pipes or plungers 18, one for each specimen well 13 in the holder 10. The depending plungers 18 have light windows thereon that are partly immersed in the liquid specimens 12 contained in the wells. Tolles teaches that light from a light source 20 is focused through the plungers 18 into the liquid specimens 12. Tolles teaches that the plungers 18 eliminate open surfaces and air gaps in the optical path from the light source through the specimen holder to obtain improved measurement results. See lines 22-31 in column 2 and Figures 3 and 5 in Tolles.

Based upon the combination of Tewes et al and Tolles, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide the device for fluorescence correlation spectroscopy taught by Tewes et al with a plurality of the sample vessels 23 in the block 21 since Tolles teaches that multiple vessels in an optical specimen holder allows multiple samples to be analyzed and processed at the same time. It also would have been

Art Unit: 1743

obvious to one of ordinary skill in the art at the time of the instant invention to provide the light sources 27-32 in the detection device used for fluorescence correlation spectroscopy taught by Tewes et al as plungers with light windows thereon for individually inserting into the wells or vessels since Tolles teaches that plungers with light windows provided on a common cover for a specimen holder having a plurality of vessels therein provides the advantage of eliminating open surfaces and air gaps in the optical path from a light source through the specimen holder to obtain improved measurement results.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tewes et al in view of Tolles as applied to claims 1-6 and 9-14 above, and further in view of Salzman et al (US Patent no. 4,200,802). For a teaching of Tewes et al and Tolles, see previous paragraphs in this Office action. Tewes et al fail to teach that the walls of the vessel in the specimen holder have openings therein for the supply and removal of liquid samples.

Salzman et al teach of a cell analysis apparatus comprising a parabolic cavity with continuous walls 14. The walls of the cavity are coated with a reflective coating to provide a focus. A beam of light is passed through the focus to perpendicularly illuminate the cells in the cavity. Light scattered or fluoresced by the cells is collected after it reflects from the walls of the cavity. Intensity distribution of the light is utilized to determine preselected characteristics of the cells. The cavity has an opening where a nozzle 22 is inserted for introducing a sample of cells into the cavity, and an opening 24 where sample is collected and drained from the cavity after the cells have been measured. See Figures 1 and 2 in Salzman et al.

Based upon the combination of Tewes et al, Tolles and Salzman et al, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide the walls

Art Unit: 1743

of the vessel in the specimen holder taught by Tewes et al with openings therein, similar to the openings 22 and 24 in the cavity taught by Salzman et al, so as to provide for the automatic supply and removal of liquid samples to the vessel while eliminating the manual pipetting of samples to and from the vessel so that the process can be performed faster and more efficiently.

8. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

The previous objections to the abstract in the Office action mailed on September 21, 2004 have been withdrawn in view of the amended abstract submitted with Applicant's response received December 17, 2004. The previous rejections of the claims under 35 USC 112, second paragraph are also withdrawn in view of Applicant's amendments to the claims. However, new rejections under this statute are set forth above, as necessitated by Applicant's amendments to the claims.

The previous rejections of the claims under 35 USC 103 as being obvious over the references to Stabile et al, Tolles and Salzman et al are withdrawn in view of the amendments to the claims concerning the light rays impinging upon the transparent medium in the sample vessels being reflected and focused to a focal point within the sample vessels. This limitation is not taught or suggested by any of the references to Stabile et al, Tolles or Salzman et al. Since these previous rejections have been withdrawn, Applicant's arguments concerning these rejections will not be addressed. New rejections under 35 USC 102(a) and 35 USC 103 are set forth herein as necessitated by Applicant's amendments to the claims.

Art Unit: 1743

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1743

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen M. Wallenhorst whose telephone number is 571-272-1266. The examiner can normally be reached on Monday-Wednesday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maureen M. Wallenhorst
Primary Examiner
Art Unit 1743

mmw

March 1, 2005

Maureen M. Wallenhorst
MAUREEN M. WALLENHORST
PRIMARY EXAMINER
GROUP ~~4200~~ 1700